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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,982

09/25/2006

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10/02/2007

EXAMINER

HOBAN, MATTHEW E

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

10/02/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/593,982

Applicant(s)

COTLEAR DE WITZMANN ET AL.

Examiner

Matthew E. Hoban

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☒ Claim(s) 1 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/25/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Status

Claims 1-12 are currently pending and presented for examination.

Specification

1. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.
2. The use of the trademark COLORSTREAM has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

3. Claim 1 and 9 objected to because of the following informalities: The word decorated is hyphenated as "deco-rated" in claim 1, where this spelling does not conform with the spelling of the word according to the Oxford English Dictionary. The word should be corrected to read "decorated". Apply the same logic to the word "fil-ler" in claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claims 3-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The use of the trademark COLORSTREAM in conjunction with various products under the trademark, such as Autumn Mystery, Viola Fantasy, and Artic Fire, fails to distinctly set forth and claim the invention at hand.

The following is a selection from the MPEP 6.08.01(v):

The relationship between a trademark and the product it identifies is sometimes indefinite, uncertain, and arbitrary. The formula or characteristics of the product may change from time to time and yet it may continue to be sold under the same trademark. In patent specifications, every element or ingredient of the product should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks which are liable to mean different things at the pleasure of manufacturers do not constitute such language. Ex Parte Kattwinkle, 12 USPQ 11 (Bd. App. 1931).

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Currently, neither the specifications nor the claims of the instant application point out and positively identify "every element or ingredient" of these products. From both the specification and the claims, the best understanding of the products is the fact that they are synthetic silicon dioxide platelets coated with metal oxides; however, this definition is currently not explicitly made and this understanding is based on the assumption that the term "color-flop pigments" and "effect pigments" refer to essentially the same thing. Furthermore, since the three products (Artic Fire, Viola Fantasy and Autumn Mystery) seem to all be species of the silicon dioxide platelets coated with metal oxides, it is overtly obvious that the aforementioned definition is insufficient in describing the materials distinctly, given that they have separate product names and different effects (as per the disclosure), they also must have separate chemical compositions. Since the physical and chemical characteristics of the pigments are integral to the functional use of the invention, it is necessary and imperative that these products be identified generically.

In light of previous art and the use of this trademark, it is abundantly unclear as to what these trademarks refer to. For example, in a previous patent granted to the applicant (Patent Number 6,794,020), the Trademark ArticFire is used in Column 12, line 1; however, in this instance the trademark is used to describe an undecorated keatite glass ceramic, which was also used as a substrate. In this situation the ArticFire trademark is applied to the entire glass ceramic, while in the instant case the trademark is only applied to the silica pigment.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being obvious over Cotlear de Witzmann et al in U.S. Patent No. 6,794,020 in view of Eppler et al in U.S. Patent Number 5,783,506.

The instant claims refer to a glass ceramic or glass body that can be subjected to high thermal loads, decorated with a colorant based on a silicate melt of molten glass containing a special effect pigment, in an amount of from 1-30 % wt, where the pigment shows a color-flop characteristic, where the pigment is a synthetically produced, plane-parallel silicon dioxide platelet coated with metal oxides, further composed of:

Li ₂ O	0 - 5
Na ₂ O	0 - 5
K ₂ O	<2
TLi ₂ O + Na ₂ O + K ₂ O	1 - 10
MgO	0 - 3
CaO	0 - 4
SrO	0 - 4
BaO	0 - 4
ZnO	0 - 4
B ₂ O ₃	15 - 27
Al ₂ O ₃	10 - 20
SiO ₂	43 - 58
TiO ₂	0 - 3
ZrO ₂	0 - 4
Sb ₂ O ₃	0 - 2
F	0 - 3

Other fillers and conventional colored pigments can also be added. This composition can then be used for screen-printing decoration on the cooking surface of a cooking area.

Patent No. 6,794,020 discloses a glass ceramic of molten glass of the following composition (Relevant to Claims 7 and 8; See Column 7):

Li ₂ O	0 - 5
Na ₂ O	0 - 5
K ₂ O	<2

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TLi2O + Na2O + K2O	1 - 10
MgO	0 - 3
CaO	0 - 4
SrO	0 - 4
BaO	0 - 4
ZnO	0 - 4
B2O3	15 - 27
Al2O3	10 - 20
SiO2	43 - 58
TiO2	0 - 3
ZrO2	0 - 4
Sb2O3	0 - 2
F	0 - 3

This composition further contains pigments such as ZrSiO_4 , TiO_2 , CaO_2 , ceramic yellow pigments, such as Zr/Sr/Pr oxides and brown pigments, such as Zn/Cr/Pr oxides and other minor constituents (Relevant to Claim 9; Column 7, lines 20-24).

This composition is intended to be used on a cooking surface so it obviously undergoes high thermal loads, which are inherently the same as those experienced by the current invention

Finally as stated by 6,794,020, this composition can be used for decorative purposes on a cooking surface, where cooking zone markings, marking for operating elements, and company logos can be applied according to the desire of the customer. Furthermore, this process is performed by screen printing (Relevant to claims 11 and 12; See Column 9, lines 6-20).

The difference between the instant claims and the disclosure of 6,794,020 arises from the addition to the melt of a special effect pigment, in an amount of from 1-30 % wt, where the pigment shows a color-flop characteristic, where the pigment is a synthetically produced, plane-parallel silicon dioxide platelet coated with metal oxides.

Eppler teaches a glaze that is composed primarily of boroaluminosilicate frit, where iron oxide-coated mica is added to the mixture and fired at 1000 C to

produce a glaze (Relevant to Claim 1 and 2, See Example 1). The iron oxide-coated mica is disclosed as being a pearlescent pigment and is added to the mixture at roughly 6% by weight (Relevant to Claim 11; See Example 1). Mica is a term describing a mineral of silica, where the silica is arranged in sheets (plane parallel platelets), separated by Sodium, Potassium, or Calcium, as well as hydrides. Another word for mica is sheet silica (SiO_2), much like graphite is a sheet of carbon. However, mica is not purely silica, where $\frac{1}{4}$ of the silica atoms are replaced by aluminum ions, but nevertheless the product is still predominately silicon dioxide. Eppler states that suitable types of mica include those, which are both synthetic, such as fluorosilicate, and also natural species, such as phlogopite (Relevant to Claim 2; See Column 3, lines 18-30 and Example 1). Eppler also states that titanium dioxide could be used as a coating. Lastly, it is also mentioned in Example 8, that the composition can be used in screen-printing.

The addition of the pigment of Eppler to the composition of Cotlear de Witzmann would have been obvious in light of the fact that it has been demonstrated that similar Silica based "color-flop" effect pigments can be incorporated into ceramic glazes and can remain stable at temperatures in excess of 1050 C. In light of this fact, it would have been obvious that such pigments were also stable in a silica based melt, as in the instant claims. It would furthermore have been obvious to try the broad range of mica-based pigments in the ceramic glazes of the instant application in light of other glazes, which have incorporated the pigments.

It would have been obvious to one of ordinary skill in the art to incorporate the pigments of Eppler into the invention of Cotlear de Witzmann for purely aesthetic reasons. The shimmer of pearlescent compositions is very attractive and one of ordinary skill in the art would have determined that this product would create a more aesthetically pleasing stovetop. Furthermore, the incorporation of these pigments into stovetops would give customers a greater amount of flexibility and customization in the design of their stovetops and would not present any burden in processing as evidenced by the thermal stability of these pigments as disclosed by Eppler.

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9. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being obvious over Cotlear de Witzmann et al in U.S. Patent No. 6,794,020 in view of Vogt et al in U.S. Patent Number 6,238,471. Please review the previous 35 U.S.C. rejection based on Cotlear de Witzmann to understand the difference between the prior art and the instant claims.

The difference between the instant claims and the disclosure of 6,794,020 arises from the addition to the melt of a special effect pigment, in an amount of from 1-30 % wt, where the pigment shows a color-flop characteristic, where the pigment is a synthetically produced, plane-parallel silicon dioxide platelet coated with metal oxides.

Vogt et al teaches the production of a blue interference pigment (color flop pigment), which is made from synthetically produced Silica flakes (plane parallel platelets) coated with cobalt oxide, as well as several other types of oxide. After the platelets are coated with oxides, they are subsequently fired and calcined at a temperature of 1000 Celsius. This process produces a golden interference pigment with a blue mass tone (Relevant to Claim 1-2, See Example 2).

Although the disclosure of Vogt does not directly teach the use of the pigment in a glass ceramic body created through a molten process, the incorporation of such pigments would have been obvious to one of ordinary skill in the art in light of the fact that the pigments are calcined at an elevated temperature, at which they remain stable. Based on this fact, it would be overtly obvious that the pigments would also remain stable in a molten glass, It would have been obvious to try adding these pigments in the claimed range between 1-30% to the molten ceramic of Cotlear de Witzmann, in light of the properties of the pigments as disclosed by Vogt (mainly their good pigment quality and temperature stability).

It would have been obvious to one of ordinary skill in the art to incorporate the pigments of Vogt into the invention of Cotlear de Witzmann for purely aesthetic reasons. The shimmer of pearlescent compositions is very attractive and one of ordinary skill in the art would determine that this product would create a more aesthetically pleasing stovetop. Furthermore, the incorporation of these

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pigments into stovetops would give customers a greater amount of flexibility and customization in the design of their stovetops and would not present any burden in processing as evidenced by the thermal stability of these pigments as disclosed by Vogt.

Conclusion

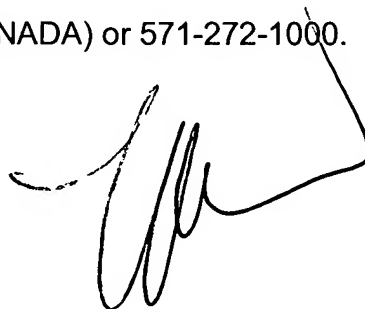
IN RETROSPECT: Claims 1-12 are rejected. Claims 1 and 9 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Hoban whose telephone number is (571) 270-3585. The examiner can normally be reached on Monday - Friday from 7:30 AM to 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



VICKIE Y. KIM
SUPERVISORY PATENT EXAMINER